Customer No.: 31561
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Application No.: 10/710,766

**AMEDMENTS**

**To the Claims:**

1. (Original) A method of expanding pins of a chip for using first interface of a first chip to transfer pins of a second interface of the first chip to a second chip, comprising:

encoding a second interface command transmitted by a second interface of a first chip into a first interface command, wherein the first interface command can be transmitted by a first interface of the first chip; and

receiving the encoded first interface command and decoding the first interface command into the second interface command, wherein the first interface command is received by a second chip so that pins of the second chip can transmit the second interface command.

2. (previously presented) The method of expanding pins of a chip of claim 1, wherein the first chip is a DVD or VCD player chip, wherein the first chip comprises:

a core logic;

a multiplexer;

a controller, coupled to the core logic and the multiplexer, adapted for receiving a command from the core logic to transmit a first interface command;

a command encoder, coupled to the core logic and the multiplexer, adapted for receiving a second interface command and encoding the second interface command into the first interface command; and

an arbitrator, coupled to the core logic and the multiplexer, adapted for controlling the multiplexer and selectively transmitting the first interface command of the controller or the command encoder.

3. (Withdrawn) The method of expanding pins of a chip of claim 1, wherein the second chip is a memory chip, wherein the memory chip comprises:

a memory circuit;

an address decoder, coupled to the memory circuit, adapted for receiving a memory access command and transmitting the memory access command according to an access address of the memory access command; and

a command decoder, coupled to the address decoder, adapted for decoding the memory access command transmitted by a second interface.

4. (Original) The method of expanding pins of a chip of claim 1, wherein the first interface is an address/data bus.

5. (Withdrawn) The method of expanding pins of the chip of claim 3, wherein the second interface of the second chip is a general-purpose input/output (GPIO).

6. (Original) A chip for expanding pins of a chip, comprising:

a core logic;

a multiplexer;

a controller, coupled to the core logic and the multiplexer, adapted for receiving a command from the core logic to transmit a first interface command;

a command encoder, coupled to the core logic and the multiplexer, adapted for receiving a second interface command and encoding the second interface command into the first interface command; and

an arbitrator, coupled to the core logic and the multiplexer, adapted for controlling the multiplexer and selectively transmitting the first interface command of the controller or the command encoder.

7. (Original) The chip for expanding pins of a chip of claim 6, wherein the core logic is an audio/video player logic.

8. (Orlginal) The chip for expanding pins of a chip of claim 6, wherein the controller is a memory controller.

9. (Original) The chip for expanding pins of a chip of claim 6, wherein the first interface command is a memory access command.

10. (Withdrawn) A memory chip, comprising:

a memory circuit;

an address decoder, coupled to the memory circuit, adapted for receiving a memory access command and transmitting the memory access command according to a access address of the memory access command; and

a command decoder, coupled to the address decoder, adapted for decoding the memory access command transmitted by a second interface.

11. (Withdrawn) The memory chip of claim 10, wherein the second interface is a general-purpose input/output (GPIO).